

Docket No.: 1454.1603

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

Norbert KROTH et al.

Serial No. 10/528,565

Group Art Unit: 2617

Confirmation No. 6384

Filed: March 21, 2005

Examiner: Marcos L. Torres

For: METHOD AND RADIO COMMUNICATION SYSTEM FOR THE TRANSMISSION OF
USEFUL INFORMATION AS A SERVICE TO SEVERAL USER STATIONS

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop Appeal Brief-Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

In a Notice of Appeal filed October 13, 2009, the Applicants appealed the Examiner's July 10, 2009 Office Action finally rejecting claims 14-16, 18-27, and 29. Appellants' Brief, together with the requisite fee set forth in 37 C.F.R. § 1.17, is submitted herewith.

The Notice of Panel Decision from Pre-Appeal Brief Review mailed February 17, 2010 indicates that the time period for filing this Appeal Brief is extended to March 17, 2010. Thus, a Petition for a two-month extension of time, together with the requisite fee for same, is submitted herewith, thereby extending the period for response to May 17, 2010.

Should any additional fees be required or an overpayment of fees made, please debit or credit our Deposit Account No. 19-3935, as needed.

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I. REAL PARTY IN INTEREST (37 C.F.R. § 41.37(c)(1)(i))

The real party in interest is Siemens Aktiengesellschaft, the assignee of the application.

II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. § 41.37(c)(1)(ii))

Appellant, appellant's legal representative, and the assignee do not know of any prior or pending appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS (37 C.F.R. § 41.37(c)(1)(iii))

Claims 14-16, 18-27, and 29 have been finally rejected and are on appeal.

Claims 1-13, 17, and 28 have been cancelled.

IV. STATUS OF AMENDMENTS (37 C.F.R. § 41.37(c)(1)(iv))

Appellants' Amendment filed April 10, 2009 was entered for purposes of Appeal as indicated by the Office Action mailed July 10, 2009.

Appellants' Pre-Appeal Brief Request for Review filed October 13, 2009 was entered for purposes of Appeal as indicated by the Notice of Panel Decision mailed February 17, 2010.

V. SUMMARY OF CLAIMED SUBJECT MATTER (37 C.F.R. § 41.37(c)(1)(v))

Independent claim 14 recites a method for transmitting payload information in a radio communication system (for example, see paragraph [0042] and radio communication system illustrated in Fig. 1) having a radio network controller (for example, see paragraph [0044] and RNC in Fig. 1), a base station (for example, see paragraph [0044] and base stations NodeB1 and NodeB2 in Fig. 1) and subscriber stations (for example, see paragraph [0044] and mobile subscriber stations UE1, UE2, UE3, UE4, UE5, and UE6 in Fig. 1), with the base station being connected to the subscriber stations via a radio communication interface (for example, see paragraph [0045] and Fig. 1). The method of claim 14 includes connecting the radio network controller to an access facility of a core network and to the base station (for example, see paragraph [0045] and RNC and CN in Fig. 1). The method of claim 14 further includes making the payload information available as a service to the subscribers, the payload information being made available from the access network, via the radio network controller and the base station (for example, see paragraphs [0019] and [0046]-[0047]). The method of claim 14 further includes sending a request notification to at least some of the subscriber stations, the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscribers stations (for example, see paragraphs [0046] and [0051] and Fig. 2 where the RNC makes the decision DECIS that the notification NOTIF-2 to the subscriber station UE2 contains a request for a reply RESP). The method of claim 14 further includes transmitting the payload information only to subscriber stations from which a reply was received (for example, see paragraph [0051] and Fig. 2 where a transmission of the payload information of the MBMS service takes place following receipt of the reply RESP).

Independent claim 26 recites a radio communication system (for example, see paragraph [0042] and radio communication system illustrated in Fig. 1) for transmitting payload information as a service to a plurality of subscriber stations (for example, see paragraphs [0019] and [0046]-[0047]). The radio communication system of claim 26 includes a radio network controller connected to an access facility of a core network (for example, see paragraph [0045] and RNC and CN in Fig. 1). The radio communication system of claim 26 further includes a base station

connected to the radio network controller (for example, see paragraph [0044] and base stations NodeB1 and NodeB2 in Fig. 1). The radio communication system of claim 26 further includes subscriber stations connected to the base station via a radio communication interface (for example, see paragraph [0044] and mobile subscriber stations UE1, UE2, UE3, UE4, UE5, and UE6 in Fig. 1). The radio communication system of claim 26 further includes a supply unit to make the payload information available as a service to a plurality of subscriber stations (for example, see paragraphs [0019] and [0046]-[0047]). The radio communication system of claim 26 further includes a request unit to send a request notification to at least some of the subscriber stations, the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscriber stations (for example, see paragraphs [0046] and [0051] and Fig. 2 where the RNC makes the decision DECIS that the notification NOTIF-2 to the subscriber station UE2 contains a request for a reply RESP). The radio communication system of claim 26 further includes a transmit unit to transmit the payload information only to subscriber stations from which a reply was received (for example, see paragraph [0051] and Fig. 2 where a transmission of the payload information of the MBMS service takes place following receipt of the reply RESP).

Independent claim 29 recites a method for transmitting payload information in a radio communication system (for example, see paragraph [0042] and radio communication system illustrated in Fig. 1) having a base station (for example, see paragraph [0044] and base stations NodeB1 and NodeB2 in Fig. 1) connected to subscriber stations via a radio communication interface (for example, see paragraph [0044] and mobile subscriber stations UE1, UE2, UE3, UE4, UE5, and UE6 in Fig. 1). The method of claim 29 includes making the payload information available as a service to the subscribers, the payload information being made available via the base station (for example, see paragraphs [0019] and [0046]-[0047] and Fig. 1). The method of claim 29 further includes sending a request notification to at least some of the subscriber stations, the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscriber stations (for example, see paragraphs [0046] and [0051] and Fig. 2

where the RNC makes the decision DECIS that the notification NOTIF-2 to the subscriber station UE2 contains a request for a reply RESP). The method of claim 29 further includes transmitting the payload information only to subscriber stations from which a reply was received (for example, see paragraph [0051] and Fig. 2 where a transmission of the payload information of the MBMS service takes place following receipt of the reply RESP).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. § 41.37(c)(1)(vi))

Claims 14-16, 18-19, 21-27, and 29 stand rejected under 35 USC § 103(a) as being unpatentable over Maggenti (U.S. Patent No. 6,633,765) in view of Amada (U.S. Patent No. 5,559,804).

Claim 20 stands rejected under 35 USC § 103(a) as being unpatentable over Maggenti in view of Amada and further in view of 3GPP (3GPP TS 22.146 V5.2.0 (2002-03), 3rd Generation Partnership Project; Technical Specification Group Services and Systems Aspects; Multimedia Broadcast/Multicast Service; Stage 1 (Release 5)).

VII. ARGUMENT

A. Review of the prior art

1. U.S. Patent No. 6,633,765 ("Maggenti")

Maggenti discloses a method and apparatus for providing coverage control for multicast service in a wireless network. The invention comprises a central transceiver for receiving a membership report from a plurality of wireless communication devices, the membership report identifying a multicast group to which at least one wireless communication device belongs. The central transceiver transmits an indication of the multicast group identified in the membership report to at least a portion of the plurality of wireless communication devices. The wireless communication devices use the information contained within the indication to determine whether or not to transmit a membership report identifying a multicast group to which it currently belongs.

2. U.S. Patent No. 5,559,804 ("Amada")

Amada discloses a wireless communication system that includes a plurality of wireless terminals and a base station for periodically generating a fixed-length communication frame composed of an information field which includes a plurality of information slots, and first and second control fields which are arranged preceding the information field and each of which includes a plurality of time slots.

3. 3GPP TS 22.146 V5.2.0 (2002-03), 3rd Generation Partnership Project; Technical Specification Group Services and Systems Aspects; Multimedia Broadcast/Multicast Service; Stage 1 (Release 5) ("3GPP")

3GPP discloses a technical paper related to Multimedia Broadcast/Multicast Service (MBMS).

B. Claims 14-16, 18-19, 21-27, and 29 are patentable over Maggenti (U.S. Patent No. 6,633,765) in view of Amada (U.S. Patent No. 5,559,804)

In the Final Office Action, the Examiner rejected claims 14-16, 18-19, 21-27, and 29 over Maggenti in view of Amada.

It is submitted that the Examiner failed to establish a prima facie case of obviousness. The references in combination do not teach or suggest all the features of claims 14-16, 18-19,

21-27, and 29.

The Examiner acknowledges, at page 3 of the final Office Action, that Maggenti does not disclose "including an information field that indicates whether or not a reply to requested notification should be sent." Therefore, it is submitted that Maggenti does not discuss or suggest:

sending a request notification to at least some of the subscriber stations, the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscribers stations,

as recited in claim 14. The Examiner attempts to make up for this deficiency with Amada. However, the appellants respectfully submit that Amada fails to make up for this deficiency in Maggenti because Amada does not discuss or suggest:

sending a request notification to at least some of the subscriber stations, the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscribers stations,

as recited in claim 14.

The Examiner indicates that Fig. 3, together with the disclosure at col. 8, ll. 10-21, of Amada discloses the claim 14 limitation of sending a request notification including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscriber stations. However, the Examiner does not make clear which part of the frame disclosed in Fig. 3 of Amada corresponds to the claimed request notification. If it is assumed that the Examiner is referring to the request reply data that, according to Fig. 4 and col. 7, ll. 18-27 of Amada, is sent by the base station in response to access requirements received from wireless terminals, it is noted that the request reply data includes an address (SA, 402) indicative of the wireless terminal that is granted to subsequently make data transmission. The wireless terminal's address is provided by the wireless terminal in an access requirement (or sending requirement) sent in a randomly selected request slot, wherein the wireless terminal transmits such access requirement when it has data to be sent. The entire procedure is disclosed in col. 6, l. 62 to col.

7, l. 52 of Amada.

This procedure of Amada corresponds to a standard random access procedure that is well known in various radio communication systems. A wireless terminal, requiring the transmission of data to the network (or to another wireless terminal) sends an access message comprising an identifier (address) to identify itself in a randomly chosen time slot to the base station of the network. The base station, receiving this access message, in turn confirms reception of the message by sending a confirmation message to the wireless terminal, also comprising the received identifier of the wireless terminal so that the terminal knows that this confirmation message is directed to it. The wireless terminal furthermore knows from the reception of the confirmation message that it is allowed to transmit its pending data in a radio channel that is explicitly assigned in the confirmation message or implicitly derivable from the slot in which the request was sent to the base station.

However, such a confirmation message or request reply data as disclosed in Amada does not correspond to the claimed notification message announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscribers stations. In contrast to claim 14, for example, Amada discloses that the request reply data is sent by the base station in response to the wireless terminal's access requirement due to the wireless terminal's need to transmit data and not because of payload information pending to be transmitted to subscriber stations. Furthermore, the request reply data in Amada does not indicate whether or not a reply to the request should be sent. The wireless terminal in Amada does not reply to the request reply data, but starts transmitting data in the assigned resources. Such transmission of data pending in the wireless terminal cannot be considered as a reply to the base station's request reply. Amada also does not disclose a specific information field in the request reply data, but instead discloses a code indicative of the direction of transmission of data, an address indicative of the wireless terminal and an error check code (see col. 7, ll. 24-27 of Amada).

Thus, for the reasons discussed above, Maggenti and Amada, alone or in combination, do not discuss or suggest all of the features recited in claim 14, so that claim 14 is patentable over the prior art. Claims 15-16, 18-19, and 21-25 depend from claim 14 and, therefore, are patentable over the prior art for at least the same reasons as claim 14.

Independent claim 26 recites "a request unit to send a request notification to at least some of the subscriber stations, the request notification the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscriber stations."

Thus, for at least the reasons discussed above with respect to independent claim 14, Maggenti and Amada, alone or in combination, do not discuss or suggest all of the features recited in claim 26, so that claim 26 is patentable over the prior art. Claim 27 depends from claim 26 and, therefore, is patentable over the prior art for at least the same reasons as claim 26.

Independent claim 29 recites "sending a request notification to at least some of the subscriber stations, the request notification the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscriber stations."

Thus, for at least the reasons discussed above with respect to independent claim 14, Maggenti and Amada, alone or in combination, do not discuss or suggest all of the features recited in claim 29, so that claim 29 is patentable over the prior art.

C. Claim 20 is patentable over Maggenti in view of Amada and further in view of 3GPP

For at least the reasons discussed above, independent claim 14 patentably distinguishes over the combination of Maggenti and Amada. 3GPP fails to make up for the deficiencies in the combination of Maggenti and Amada with respect to claim 14, so that claim 14 patentably distinguishes over the combination of Maggenti and Amada and 3GPP. Thus, claim 20, which depends from claim 14, also patentably distinguishes over the combination of Maggenti and Amada and 3GPP.

D. CONCLUSION

In summary, Applicants submit that claims 14-16, 18-27, and 29 patentably distinguish over the prior art.

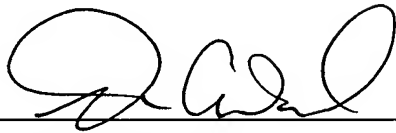
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Reversal of the Examiner's rejection is respectfully requested.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 5-17-4

By: 

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VIII. CLAIMS APPENDIX (37 C.F.R. § 41.37(c)(1)(viii))

What is claimed is:

1-13. (cancelled)

14. A method for transmitting payload information in a radio communication system having a radio network controller, a base station and subscriber stations, with the base station being connected to the subscriber stations via a radio communication interface, the method comprising:

connecting the radio network controller to an access facility of a core network and to the base station;

making the payload information available as a service to the subscribers, the payload information being made available from the access network, via the radio network controller and the base station;

sending a request notification to at least some of the subscriber stations, the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscribers stations; and

transmitting the payload information only to subscriber stations from which a reply was received.

15. The method as claimed in Claim 14, wherein
the request notification is not sent to all subscriber stations.

16. The method as claimed in Claim 15, wherein
the request notification is sent to subscriber stations selected based on the subscriber stations assignment to radio cells.

17. (cancelled)

18. The method as claimed in Claim 14, wherein

the radio network controller makes a decision regarding which subscriber stations are to receive the request notification.

19. The method as claimed in Claim 14 wherein
a decision is made regarding which subscriber stations are to receive the request notification, and

the decision is based on criterion specific to the radio network of the radio communication system.

20. The method as claimed in Claim 14 wherein
a decision is made regarding which subscriber stations are to receive the request notification, and

the decision takes into consideration at least one factor selected from the group consisting of configuration of the radio network of the radio communication system, existing knowledge on a radio network side about subscribers, utilization of radio resources in the radio network, utilization of radio resources in areas of the radio network, and specific properties of the service.

21. The method as claimed in Claim 14 wherein
replies from the subscriber stations are not transmitted concurrently.

22. The method as claimed in Claim 21 wherein
replies from the subscriber stations are transmitted at random.

23. The method as claimed in Claim 21 wherein
replies from the subscriber stations are transmitted in a controlled manner with regard to time of sending the request notification.

24. The method as claimed in claim 14, wherein the request notification is used to configure the subscriber stations for the payload information.

25. The method as claimed in Claim 15 wherein

transmission of the payload information for a group of subscriber stations takes place following receipt of the reply from one subscriber station of the group.

26. A radio communication system for transmitting payload information as a service to a plurality of subscriber stations, comprising:

- a radio network controller connected to an access facility of a core network;
- a base station connected to the radio network controller;
- subscriber stations connected to the base station via a radio communication interface;
- a supply unit to make the payload information available as a service to a plurality of subscribers stations;
- a request unit to send a request notification to at least some of the subscriber stations, the request notification the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request notification should be sent by the subscriber stations before the payload information is transmitted to the subscriber stations; and
- a transmit unit to transmit the payload information only to subscriber stations from which a reply was received.

27. The radio communication system as claimed in Claim 26, wherein the request notification is not sent to all subscriber stations.

28. (cancelled)

29. A method for transmitting payload information in a radio communication system having a base station connected to subscriber stations via a radio communication interface, the method comprising:

- making the payload information available as a service to the subscribers, the payload information being made available via the base station;
- sending a request notification to at least some of the subscriber stations, the request notification the request notification announcing that a transmission of the payload information is pending and including an information field that indicates whether or not a reply to the request

notification should be sent by the subscriber stations before the payload information is transmitted to the subscriber stations; and

transmitting the payload information only to subscriber stations from which a reply was received.

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IX. EVIDENCE APPENDIX (37 C.F.R. § 41.37(c)(1)(ix))

Not applicable

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X. RELATED PROCEEDING APPENDIX (37 C.F.R. § 41.37(c)(1)(x))

Not applicable